We compared outcomes of 141 consecutive patients who received allogeneic SCT between 1997 and 2004 with either MA or NMA conditioning to treat non-Hodgkin (MA= 62; NMA = 53) or Hodgkin (MA = 3; NMA = 23) lymphoma. NMA patients were older [MA: 42 years (4–58); NMA: 48 years (19–66)] and more recently transplanted [1997–2000: MA = 31; NMA = 10; 2001–2004: MA = 34; NMA = 66]. Cord blood was used more frequently in the NMA cohort [MA: 6 (9%); NMA: 33 (43%)]. NMA patients had more advanced disease with 57 (75%) in second or greater partial remission (PR) versus 37 (57%) MA patients. Those in complete remission comprised 12 (16%) patients in the NMA cohort and 17 (26%) in the MA cohort. The remainder were in first PR. Thirty patients (39%), all NMA, had prior autologous transplants. Conditioning regimens consisted of CyTBI, BuCy, or Fludarabine (75 mg/m^2) Cy(120 mg/kg) TBI 13.2Gy for MA and TBI 2.0Gy plus either Fludarabine (200 mg/m^2) Cy (50 mg/kg), Bu (8 mg/kg) Flu, or Bu Cladrabine(50 mg/m^2) for NMA. GVHD prophylaxis was primarily cyclosporine (CSA)/methotrexate in the MA cohort (n = 59) and CSA/mycophenolate mofetil in the NMA cohort (n = 76). Results are shown in Table 1. In the evaluable population, primary neutrophil engraftment at day 28 was not different between the MA and NMA cohorts; however, time to ANC ≥500 was significantly shorter in the NMA population. One year treatment related mortality (TRM) was significantly lower for patients in the NMA cohort but the risk of relapse at 1 year was higher. Acute GVHD grade II-IV and grade III-IV did not differ nor was there a difference in the cumulative incidence of chronic GVHD at 1 year. Overall survival (OS) at 1 year was lower in the MA cohort but similar by 3 years of follow-up. Disease free survival (DFS) did not differ at 1 or 3 years. Year of transplant, recipient age, stem cell source, and related donor were not predictive of OS or DFS. For the NMA patients, there was a suggestion that those with low grade lymphoma (n = 21) were more likely to be alive and disease free whereas patients with T cell (n = 6) or Hodgkin lymphomas were likely to relapse or die. Prior autologous transplant, stem cell source, and disease status did not impact outcomes in the NMA cohort. These results suggest that the greater TRM of a MA regimen is balanced by a greater risk of relapse with a NMA regimen in lymphoma patients. Further investigations to determine appropriate candidates for the NMA approach are ongoing (Table 1).

Table 1. *Results*

	Myeloablative (n = 65)	Non-myeloablative (n = 76)	*P*-value
Cumulative Incidence of Neutrophil Engraftment at day 28 (95% CI)	95% (89–100)	95% (90–100)	NS
Days to ANC ≥500/μL (range)	16 (11–28)	9 (0–28)	<0.01
TRM at 1 year	40% (28–52)	17% (9–26)	<0.01
Relapse at 1 year	14% (5–22)	37% (25–48)	0.02
Grade II–IV acute GVHD	43% (30–56)	58% (45–71)	NS
Grade III–IV acute GVHD	14% (6–22)	25% (15–35)	NS
Chronic GVHD at 1 year	32% (20–45)	46% (33–59)	NS
Median follow-up of Survivors* {months(range)}	33 (12–66)	24 (10–49)	0.04
Overall Survival			
1 year	54% (42–62)	66% (55–76)	0.07
3 years	48% (35–60)	38% (21–55)	NS
Disease Free Survival			
1 year	46% (34–58)	46% (35–57)	NS
3 years	41% (29–54)	25% (11–39)	NS

*MA: n = 29; NMA: n = 40

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AUTOLOGOUS STEM CELL TRANSPLANTATION FOR MULTIPLE MYELOMA IN PATIENTS OVER 70 YEARS: A MATCHED COMPARISON WITH PATIENTS UNDER 65 YEARS

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Background: Autologous stem cell transplantation (ASCT) prolongs survival in patients (pts) with multiple myeloma (MM) as shown by randomized trials. However, most studies included younger pts, usually 65 or less, and the outcome for older pts, especially those over 70, is unclear. We retrospectively reviewed our experience with ASCT for MM in pts over 70 years. **Methods:** We identified 35 pts with MM who were ≥70 years at the time of their ASCT. We matched them to 70 pts (two matches per pt), based on status at transplant (primary refractory, plateau phase, relapse off therapy, or relapse on therapy), Durie Salmon stage, high or low labeling index, conventional cytogenetics (abnormal vs normal), presence of circulating plasma cells at time of stem cell collection, in that order of priority. **Results:** The median age of the groups were 55.3 (range, 37.3–64.8) and 71.7 (70–75.8) years at transplant. The median time to transplant from diagnosis was similar (6.4 for the older pts compared to 6.9 mos for the other, P = NS). Ten of the 35 older pts received reduced dose melphalan (140 mg/^{2}) compared to 3 pts in the control group; $P < .01$. The median follow up from transplant was 10.1 months for the older pts compared to 18 months for the control group. The overall response rate was similar (97.1% for the older pts compared to 95.5% for the control group). Eleven (31%) of the older pts and 17 (24%) of the control pts achieved a CR (P = NS). The post transplant progression free survival estimate at 1 year post transplant was 65.3% for the older pts compared to 66% for the control group ($P = .3$). The 2-year estimated overall survival from transplant was similar; 58% for the older pts compared to 67% for the control group. The overall survival from diagnosis was similar for the two groups ($P = .6$). The median number of days hospitalized was 9 days for the older population compared to 5 days for the control group ($P = .37$). Four pts died within the first one hundred days, one among the older patient group. **Conclusions:** ASCT is feasible in selected pts with MM over 70 years. It is likely that older pts were selected based on their overall performance status, a factor that is difficult to analyze in this retrospective review. Nearly 70% of the elderly pts received full dose melphalan for conditioning (200 mg/m^2). The toxicity of transplant and outcome appears to be similar to the younger pts. Pts with MM should not be excluded from ASCT solely on the basis of their age.

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PRE-TRANSPLANT POSITIVE PET/GALLIUM SCANS PREDICT POOR OUTCOME IN RELAPSED/REFRACTORY HODGKIN LYMPHOMA (HL)

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High dose chemotherapy followed by autologous stem cell transplantion (SCT) has become the standard of care in patients (pts) with relapsed or refractory HL. Chemosensitivity, assessed by conventional tomography, has been correlated with better disease free survival (DFS) and outcome. We assessed the value of functional imaging (FI) in pts with HL referred to MDACC and treated with high dose chemotherapy followed by SCT from December 1999 to May 2004. Twohundred fifteen pts, male 60%, median age 31 years, (range 10–76), with nodular sclerosis type 90%, were diagnosed at stages I (2%), II (43%), III (32%), and IV (23%). Eighty-six percent of the pts were treated with ABVD-based regimens, 45% received adjuvant radiation therapy. Thirty-one percent of the pts were primary refractory. Most of the pts (90%) were salvaged with ESHAP chemotherapy, and the preparative regimen was BEAM in 80%. At the time of salvage therapy, B symptoms were present in 60% of the pts, extra-nodal disease was documented in 24%, and relapse beyond 12 months of re-